

## Koch, Kristine

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**From:** GAINER Tom <GAINER.Tom@deq.state.or.us>  
**Sent:** Monday, January 13, 2014 11:14 AM  
**To:** Koch, Kristine; Humphrey, Chip  
**Cc:** MCCLINCY Matt; GAINER Tom; PARRETT Kevin; poulsen.mike@deq.state.or.us;  
PETERSON Jenn L  
**Subject:** RE: PRGs-

Kristine-

At the recent TCT you suggested that DEQ wait to submit comments on the PRGs until EPA produces the write-up on how the PRGs were derived (~late March). DEQ agrees to this, but offers these preliminary questions on PRG derivation as an indication of what sort of information DEQ is looking for in the write-up and perhaps assist EPA as you prepare it. DEQ will review and comment on the PRGs after we receive this information, and would like to do this soon before the application of PRGs in the proposed plan/FS are too far along. While DEQ would appreciate the back-up spreadsheets now, we are not expecting a full response to these comments at this time.

### Human Health

The best way to review EPA's PRG calculations is for us to obtain from EPA their assumptions, equations/models, and all input parameter values. DEQ needs the working spreadsheets that address all the information required to duplicate EPA's calculations. Specifically, this includes:

- Risk assessment equations modified to solve for concentration (PRG) given acceptable risk levels, including all exposure parameters values and toxicity values. This applies to all relevant receptors for beach sediment, in-water sediment, and fish consumption (tissue).
- Food web model spreadsheet(s) showing solution for acceptable sediment levels based on acceptable fish tissue levels.
- Supporting information for BSAF model(s), including calculation of BSAF values, and assumptions for fraction of organic carbon in sediment and lipid content of fish tissue.

In addition, it is important for us to understand the assumptions inherent in the calculations (such as application of PeCDF and dioxin TEQ PRGs) that are critical for evaluating remedial actions in the feasibility study.

### Ecological

PRGs were calculated using the food web model and BSAFs, depending on the chemical. The specifics were to be sent in a spreadsheet that has not been received. However, understanding the implications of the modeling are critically important for both the review and the application of the PRGs. Some PRGs for the ecological assessment are greater than the LWG PRGs, so understanding the justification will be important. Issues include:

- The scale over which the PRG was calculated (e.g. 3 river miles, 1 river mile, etc.)
- Receptor specific parameters such as food and sediment ingestion rates and toxicity values
- In the cases of chemical sums such as DDX, dioxins, PCBs, and dioxin/ Total TEQ what assumptions were made about chemical properties or representative assumptions that were made as a surrogate for a group
- Methodology used (BSAF or food web model). These may be different than what was done for the human health assessment.

### Benthic Toxicity PRGs

DEQ understands the results of actual bioassay tests will be used as the primarily line of evidence in delineating areas for the FS. However, it is unclear how SLVs either as PECs or the logistic regression will be used to identify preliminary areas for the FS where toxicity tests are lacking.

- How will the toxicity tests results we currently have be used in the FS for identifying areas? DEQ understands that hit criteria of tier II toxicity will be brought in the FS. This will identify different areas than the LWG.

- Will areas identified by exceedances of the current individual benthic PRG list (SLVs and logistic regression SQGs) be used for this purpose? Are there any plans to use them in any quotient methodology for the purpose of evaluating mixtures? What are the mapped areas if you use the PRGs?

Thanks-  
Tom

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**From:** Koch, Kristine [mailto:Koch.Kristine@epa.gov]  
**Sent:** Monday, December 09, 2013 2:52 PM  
**To:** GAINER Tom  
**Cc:** MCCLINCY Matt  
**Subject:** RE: PRGs-

Tom – here are the updated PRGs.

Let me know if you have any questions.

Regards,

Kristine Koch  
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USEPA, Office of Environmental Cleanup

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**From:** GAINER Tom [mailto:GAINER.Tom@deg.state.or.us]  
**Sent:** Monday, December 09, 2013 10:44 AM  
**To:** Koch, Kristine  
**Cc:** MCCLINCY Matt  
**Subject:** PRGs-

Kristine-

Please provide me with an electronic version of the current PRGs. I believe this is the 11/13 LWG meeting handouts # 4 and 5, plus any corrections (e.g., Total cPAH RAO 1 Direct PRG) and/or updates.

Thanks-

**Tom Gainer, P.E.**

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